

REMARKS

Pending Claims

Claims 1-10 are pending in this application. Claims 1 and 6 have been amended.

Specification

The specification has been amended to more specifically describe the transport element 11 as a conveyor belt transport element as clearly shown in Fig. 1 of the drawings. No new matter has been added by the amendment to the specification since it only describes that which is shown in the drawings.

Claim Rejections Under 35 U.S.C. §102 and 103(a)

Claims 1-5 and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bakker (U.S. Patent No. 6,231,436). Claims 6-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bakker as applied to claim 1 above and further in view of Freund et al. (U.S. Pub. No. 2003/0176158).

These rejections are traversed as follows.

Patentability of the Claims

Claims 1 and 6 have been amended to further define the transport element 11 as being a conveyor belt transport element as clearly shown in Fig. 1 of the drawings. As will be discussed in greater detail hereafter, both the Bakker '436 and

Freund '158 references relate to products to be processed which do not lie flat and are not transported flatly on a conveyor belt as in the present invention. Rather, in Bakker, the poultry product is hooked up on an overhead conveyor and in Freund et al. the spare rib product is conveyed through a channel. Thus, the problem to solved by the present invention is not even present in the cited prior art and a solution to the problem forming the basis for the present invention is not taught or rendered obvious.

Applicants' invention as now claimed is directed to an apparatus for the automatic processing of meat such as fish and includes a conveyor belt transport element 11 for transporting the meat and a cutting element 12 such as a circular blade for cutting or trimming the meat. A counter-surface 13 is shown in Figs. 1, 5 and 7 having a slit 26 therein which is provided under the circular blade A control or regulating apparatus 40 is provided which is functionally connected with the cutting element. Significantly, a threading element 14 is mounted forwardly of the counter-surface 13 in a horizontal transport plane E₁ of the meat, with the threading element being bent laterally from the counter-surface in the horizontal plane at a horizontal angle with respect to the counter-surface whereby an outer end of the threading element extends at least partially across and in the horizontal transport plane E₁ to at least partially lift one side of the meat prior to the meat reaching the counter-surface.

As clearly shown in Figs. 5 and 7, the threading element 14 is angled at a preferred angle of approximately 30 degrees to extend at least laterally part of the way across the surface of the horizontal conveyor belt transport element 11 so that

the leading edge of the threading element 14 initially contacts one side of the meat being transported along the conveyor belt transport element whereby only a part of the meat is initially lifted off from the conveyor belt transport element. This prevents blunt or frontal impacting of the entire piece of meat on front of the threading device all at once which causes pieces of meat to accumulate and interfere with proper cutting. The remainder of the meat is then lifted off the transport element by the threading element 14 as the meat continues to be moved in the direction of transport. In this fashion, the meat is initially lifted prior to reaching the counter-surface 13 whereby the cutting element 12 is easily enabled to cut or trim the meat. A deflector element 30 is arranged behind the counter-surface 13 in the direction of transport whereby material such as fat which is cut during the cutting process is removed from the transport element. The unit consisting of the counter-surface and the threading element preferable is constructed as an integral unit so as to be swivellable from a position outside of the transport element to a position over the transport element, independently with respect to the apparatus.

Claim 10 is patterned after claim 1 but is directed to the method for the automated processing of meat using the threading element.

Applicants' invention, as described above, is not anticipated or otherwise rendered unpatentable by the Bakker '436 and/or the Freund '158 references.

With respect to the Bakker '436 patent, this reference relates to a method and apparatus for uniformly positioning legs of slaughtered poultry wherein the legs 2-5 are suspended by the ankles by hooks 1 of an overhead conveyor (not shown). A

horizontal conveyor belt 6 is positioned under the first part of the overhead conveyor, and the conveyor belt 6 moves at a greater speed 7 than the transport speed 8 of the overhead conveyor. The conveyor belt 6 is placed under the hooks 1 at a distance such that the legs on the hooks touch the conveyor belt and due to the difference in speed between the conveyor belt and the hooks 1, the legs are lifted slightly from their original position shown by leg 2 in Fig. 2 to the position of leg 3 shown in Fig. 3 whereby the legs are loosened slightly from the hooks. Also extending under the overhead conveyor and positioned after the moving conveyor 6 is a stationary horizontal plate 9 whereby as the legs are dragged over the stationary plate the legs are caused to rotate into a position in which they will point sideways in relation to a vertical plane through the overhead conveyor.

The Bakker device further includes guides 15 and angled feed guides 16 for guiding the legs to effect in an interaction with various direction checks 11 and 12 which position the legs properly for further action. The central guide plate 17 is applied on top of the first direction check 11.

In the action, the examiner refers to Bakker as showing a transport element at 1 and/or 6 for transporting the meat. As previously noted, however, the conveyor 1 is not a conveyor belt but an overhead conveyor which has hooks attached thereto to hold the poultry legs. The conveyor element 6 does not transport the meat but only runs at a faster rate of speed than the conveyor hooks 1 to partially loosen the legs from the hooks. The actual transporting of the legs is done by the hooks and not the conveyor belt 6. The examiner further states that Bakker has a counter surface for

the cutting element and refers to elements 11-17. Bakker, however, does not show a counter surface used in connection with the cutting element and, indeed, the cutting element is not even disclosed in the drawings but is only mentioned in the specification as "an apparatus... for stripping off the meat".

The Examiner further refers to the straight guides 15 on either side of conveying path and the angled feed guide 16 as a threading element. This construction, however, is totally different from Applicants' invention. The guides 15 are merely guides on the side of the conveying path which do not function as any kind of threading element and the angled guides 16 are merely provided on each side of the conveying path in order to position the poultry legs to be processed. The angled feet guides 16 are completely different in structure and function from the threading element of the present invention. As previously mentioned, the threading element of the present invention enables a product such as a fish fillet to be processed safely and reliably by being partially raised and lifted on one side onto the counter surface whereby the product is cut and/or trimmed by the threading element.

With respect to claim 2, the examiner states that Bakker discloses a threading element at 16 which is integral to a counter surface at 14, 15. As previously noted, the element 16 is merely an angled feed guide and the element 15 is a guide on the side of the path of conveyance. The element 14 is merely an extension of the first direction check 11 and is not connected to the guides 15 and 16. With respect to claims 3, 4 and 5, the examiner's characterizations of the elements of Bakker are not believed correct when taken in the context of Applicants' invention as claimed.

Claim 10 is patterned after claim 1 but is directed to the method for automated processing of meat using the threading element. This claim is patentable for the same reasons as advanced with respect to claim 1.

Accordingly, it is respectfully submitted that claims 1-5 and 10 are patentable over the Bakker '436 reference.

With respect to the rejection of claims 6-9 over Bakker in view of Freund et al., the examiner acknowledges that Bakker does not disclose a unit consisting of a counter surface and a threading element which is swivellable from a position outside of a transport element to a position over a transport element independently with respect to the transport element. To supply this deficiency of Bakker, the examiner cites Freund as disclosing a counter at 21 which is swivellable by means of pivot 50 and gas spring 39.

The Freund et al. patent relates to an apparatus for severing a spare rib from a backbone which is conveyed inside a guide way 2 comprised of two guide plates 21, 22 which define a wedge shaped channel 23 through which the spare rib projects and includes a cutting device or blade 1 which projects into a slot in a transversely moveable guide plate 22.

The Freund et al. device includes a conveyor drive unit 3 having conveyor wheels 33 which is disposed above a guide way 2 which is only described as a guide way and not a moveable conveyor belt. The conveyor wheels 33 engage the spare ribs and move them along the guide way. The entire conveyor drive unit 3 is pivotable around a pivot point 50 and the pivoting is assisted by a gas spring 39. As

shown in Fig. 4, one of the guide plates 21 is attached to the conveyor drive unit 3 whereby it pivots upwardly with the conveyor drive unit. The single guide plate 21, however, is not a counter surface in the manner of Applicants' invention. Moreover, the conveyor drive unit 3 is pivotable only over a stationary guide way 2 which is not the same as a moveable conveyor belt transport item as in Applicants' invention.

With respect to claim 8 the examiner states that the casters 46 and 46a permit the device to be moved through various positions. The casters of Freund et al., however, are far different than the apparatus of Applicants' invention which has nothing at all to do with casters making the unit moveable.

Accordingly, even if the teachings of Bakker are combined with Freund et al., claims 6-9 are not rendered unpatentable as being obvious.

Accordingly, it is submitted that claims 1-10 are patentable.

Conclusion

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment, to the deposit account of Mattingly & Malur, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. WK-5391).

Respectfully submitted,

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